

present

apparent

Given the present disclosure, further methods will be apparent to one skilled in the art to implement the above features and advantages, and the features and advantages discussed below. Further, other objects and features of the invention will become apparent from consideration of the following description taken in connection with the accompanying drawings, in which like numbers refer to like parts throughout.

### BRIEF DESCRIPTION OF THE DRAWINGS

- FIG. 1 shows a plan side view, side perspective view, end view, and bottom view, respectively, of a first embodiment of this invention;
- Figure 2 shows a top view of the vibratory element of Figure 1;
- Figure 3 shows an end view of Figure 2;
- Figure 4 shows a perspective view of a second embodiment of this invention;
- Figure 5 shows a side view of a third embodiment of this invention using a C-clamp configuration;
- Figure 6 shows a perspective view of a fourth embodiment of this invention driving multiple elements;
- Figure 7a shows a perspective view of a vibratory element of this invention containing a press-fit piezoelectric element;
- Figure 7b shows an enlarged portion of the vibratory element of Figure 7a during assembly;
- Figure 8 shows a fifth embodiment of this invention having a press-fit piezoelectric element;
- Figure 9 shows a top view of a press-fit embodiment before deformation;
- Figure 10 shows a top view of the embodiment of Figure 9 after deformation by a cylindrical wedge;
- Figure 11 shows a sectional view along line 11-11 of Figure 10;
- Figure 12 shows a top view of an alternative embodiment of Figure 9 using a rectangular wedge;
- Figure 13 shows an embodiment with the piezoelectric element offset from the axis of a resonator;
- Figure 14 shows an embodiment with an insert offsetting the force from the piezoelectric element from the centerline of a resonator;